

TORPEDO ASSISTANT INSPECTION GUIDE

Rev: Mar 2005

Please return to LCDR Young with updates, corrections, and comments for improvement.

CT = Combined Trials (new construction)

Prior to doing anything on this list, make sure you understand the 'Guidance for INSURV SUBMARINE WEAPONS ASSISTANTS.' The Document that specifies when each item will be conducted is the ship's agenda. This guide is only a list of inspections to be conducted.

Attend the following briefs/meetings:

- TLD brief
- Officer/LPO brief
- meet with ship's force counterparts to review agenda, inspection guide, and CSMP, and to answer any questions they may have.

Review latest CSRR report and document outstanding significant deficiencies. If an item is already in CSMP, then no further action is required.

Review CSMP / ESL. These are turned into insurv deficiencies by LCDR Young. Feedback any corrections, updates, or whether an item is significant.

Inspect (operational test) weapon shipping and handling interlock system by loading and offloading weapons (CT only).

Inspect weapon shipping and handling equipment. Talk to ship's force, inspect several pieces of hardware, inspect fasteners, inspect electrical components. If there is a suspected problem that indicates we need to rig the weapons handling skid upon return to port, notify LCDR Young immediately.

Conduct weapon stowage and tube loading as directed by LCDR Young.

- a. Verify ram cable tension is appropriate.
 - b. Verify rollers are captured in the tray with the rollers half up.
- (MRC, OD 44979)

Measure cycling times for muzzle door (MRC).

Measure muzzle doors breakaway and peak operating pressures (MRC) (N/A Trident).

Review the results of the instrumented waterslugs. Brief LCDR Young (MRC).

Conduct or review the results of the PVC flow rate test. (Some ships require testing using No-Launch (NL) TOTEM) (MRC).

Zone inspection: Inspect torpedo room material condition, preservation, cleanliness, lagging, missing bolts, deck tile, gage calibration, stowage, etc (MRC).

Inspect signal ejector components as requested by LCDR Young.

Shoot water slugs at max speed surfaced and submerged. The first set, on the surface, is normally fired from control. During at least one set, observe the operation of the firing valve and TEP. Check for air leaks and water leaks (MRC).

Test Depth: Inspect weapon stows and handling system. Load tubes as directed by LCDR Young (MRC).

Test Depth: Check slide valves for leakage (MRC).

Test Depth: Cycle muzzle doors with flood control (URO/MRC)
Important: this must be briefed as soon as possible after getting on board with TM LPO. Ensure we understand who operates what, and whether we are doing this at the same time as other flood control checks (for example, the machinery room or TDU, etc.).

Test Depth: Shoot waterslugs from each torpedo tube (MRC).

Conduct audit of special tools, spot check 10 items on each AEL. Include special tools for torpedo tubes, UGM-109, and MK 48/ADCAP.

After submerged ops: Torpedo tube cable and breech door pin connector checks.

- a. Test connectors for pin continuity (7081/4M-1R, A-12)
- b. Perform A-Cable insert pin socket squeeze test
- c. Test connectors for insulation resistance
- d. Perform B-Cable pin socket squeeze test

Other underway items per INSURVINST 4730.2E.

Impulse tank doors. Should have "tighten nut" sign. Some have ball lock pin. Each class is slightly different. See drawing for requirements.

Investigate status of required ORDALTS (Ram pump upgrade, quick vent, etc). Check for complete installation, document deficiencies.

Inspect TLMD. Spot check several weight test cards and inspect associated components.

Zone inspection. Look for rust spots, wire condition, leaks, valve labels, pipe hangers, lighting, lockers, etc.

Discuss Open and Inspect List with LCDR Young.

IN PORT OPEN AND INSPECT

VLS Test Sequence (N/A Non-VLS):

Try to do it all on RTP day, as soon as the platform is on.

- D/P transducer checks (WS-96/S-9R)
- EMS wet probe checks (WS-96/S-9R)
- Locking bar, bumper bar checks (WS-96/S-7R)

PVC System (N/A Non-VLS):

Pressure vent control valves (Tomahawk capable ships) (7081/M-4R)

PVC Tightness Test (7081/S-1R)

PVC Manifold

Torpedo Tubes:

Verify stop bolt greasing is adequate.

Inspect firing and hydraulic interlock disconnects. (7081/A-10, 688 class; 7081/R-10, TRIDENT)

Slide Valve & Interlock Gear Covers

Torpedo Ejection System:

Impulse Tanks (consult with LCDR Young, only required if there is excessive debris in tube after waterslugs)

Other Equipment specified: (INSURVINST 4730.2E)

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